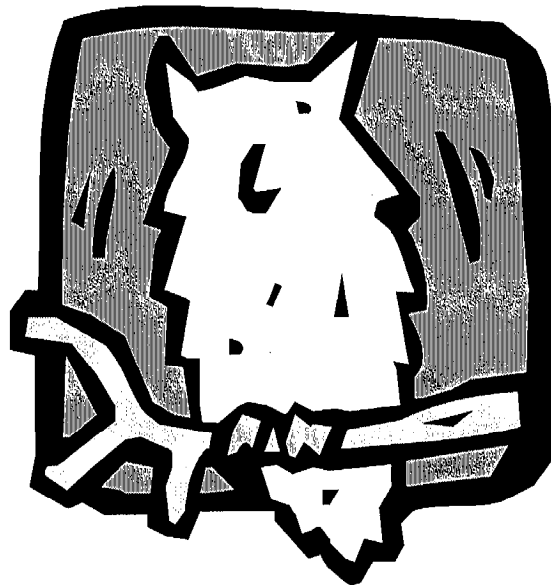


# ATTACHMENTS



## **ATTACHMENT A**

# **DETERMINATION OF POTENTIAL AGRICULTURAL CONSERVATION SAVINGS**



# Determination of Potential Agricultural Conservation Savings (Low End of Range)

## Sacramento River

### Input Data from DWR

Applied Water	6,278	(1,000 af)
Depletion	4,321	(1,000 af)
ET of Applied Water	4,096	(1,000 af)

### Assumptions for Calculations

1. Ave. Leaching Requirement =	4%
2. % lost to Channel Evap/ET <sup>3</sup> =	4%
3. Assumed allocation of conservation betw District and On-farm district portion = 1/3 of savings * "adjustment factor"	
canal lining:	0
tailwater:	0 (adjustment factor
flexibility:	2 based on region variation
meas/price:	2 in water districts)
4 (points for this region's districts of 4 points for average)	
1 = adjustment factor	
33% = district portion	
67% = on-farm portion	

### Calculations from Input Data

	(1,000 af)
Total Existing Losses	2182 (Diff betw. Applied Water and ETAW)
Total Irrecoverable losses	225 (Diff betw. Depletion and ETAW)
Total Recoverable losses	1,957 (Diff betw. Applied Water and Depletion)
Ratio of Irrecoverable Loss	10% (Irrecov divided by total existing losses)
Portion lost to leaching	17 (Leach Req. * ETAW * Irrec. Loss Ratio * Adj. Factor)
Portion lost to Channel Evap/ET	251 (Applied Water * % lost to Channel Evap/ET)
Total Loss Conservation Potential	1,914 (Total Existing loss - portion to leaching - portion to channel evap/ET)
Irrecoverable Portion	0 (Irrec loss - portion to leaching - portion lost to channel evap/ET)
Recoverable Portion	1,914 (Total Existing loss - Irrecoverable Loss Portion)

### Incremental Distribution of Conservable Portion of Losses

	Distrib. Factor	Applied Water Reduction <sup>1</sup> (1,000 ac-ft)	Irrec. Loss Reduction <sup>2</sup> (1,000 ac-ft)	Rec. Loss Reduction (1,000 ac-ft)
No Action Increment = 1st 40%	0.40	766	0	766
CALFED Increment = next 30%	0.30	574	0	574
Remaining = final 30%	0.30	574	0	574
		1,914	0	1,914

### Summary of Savings:

Existing Applied Water Use = 6,278

#### Total Potential Reduction of Application

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	511	383	894
District	--	255	191	446
Total	2,182	766	574	1,340

#### Recovered Losses with Potential for Rerouting Flows

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	511	383	894
District	--	255	191	446
Total	1,957	766	574	1,340

#### Potential for Recovering Currently Irrecoverable Losses

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	0	0	0
District	--	0	0	0
Total	225	0	0	0

#### Notes:

1. Calculated as the distribution factor times the "conservable portion" of the total existing loss. The first 40% of savings potential occurs under No Action. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
2. Calculated as the distribution factor times the "conservable portion" of irrecoverable loss. The first 40% of savings potential occurs under No Action. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
3. Derived from comparing consumptive conveyance loss values from USBR *Least-Cost CVP Yield Increase Plan*, T.A #3 (Sept. 1995) to applied water values for the region. A range of 2 to 4% was used to account for uncertainty. This value accounts for consumption by bank and riparian vegetation and channel evaporation.